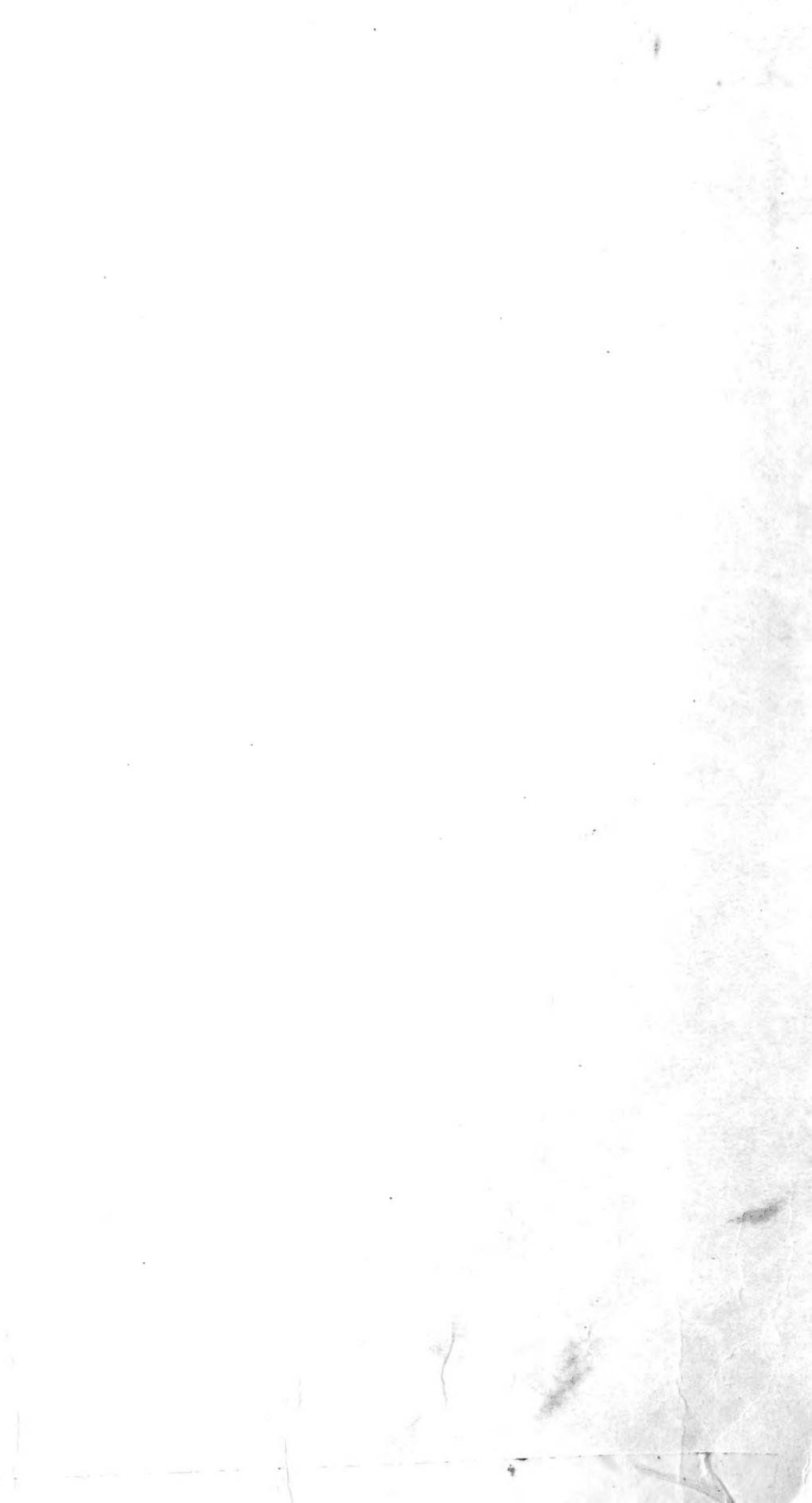


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Missouri

U.S. DEPARTMENT OF AGRICULTURE

Plant Industry Sub-branch

The Home FRUIT GARDEN

*in the Southeastern and
Central Southern States*

LEAFLET
NO. 219



U. S. DEPARTMENT OF AGRICULTURE

THE HOME FRUIT GARDEN IN THE SOUTHEASTERN AND CENTRAL SOUTHERN STATES¹

The National Nutrition Conference, held in Washington, D. C., November 1941, urged Americans to eat more fruit.

Well-ripened, sound fruits increase the healthfulness, variety, attractiveness, and palatability of meals. Despite the relatively large available supplies of fruit, many families, especially on farms, do not have adequate quantities in the diet. In almost every part of this region certain fruits and nuts that usually need little or no spraying can be grown successfully in farm or suburban fruit gardens. Fruits that need spraying are not so well suited for home production. By properly selecting the kinds and varieties for home planting, a succession of fresh fruit of high dessert quality can be available during much of the summer, and surpluses may be canned, preserved, dried, or in some cases frozen for use during other seasons. Such home consumption of fruits, together with purchases of kinds that cannot be grown successfully, should improve the diet and general health.

This leaflet lists the best kinds and varieties of fruits and nuts for home planting in the southeastern United States and gives brief directions for their care. Detailed information can be obtained from the State agricultural extension service or agricultural college.

Climatic Districts for Fruit and Nuts

Summer and winter temperatures, rainfall, and prevalence of diseases and insects are all important in determining the varieties that can be grown in different districts. Although fruit and nut varieties differ greatly in their adaptation to conditions, some kinds can be grown in almost every home garden in this region. On the map in figure 1 the southeastern and central Southern States are divided into districts based chiefly on the length of the growing season. In general, the same fruit and nut varieties can be grown throughout a district.

Kinds and Varieties to Plant

Under most conditions in this region the best fruits and nuts for the home garden are, in order of adaptability where spraying is not practiced, (1) grapes (muscadine), (2) pecans, (3) figs, (4) strawberries, (5) dewberries, (6) blueberries (rabbiteye varieties), (7) pears, (8) blackberries, (9) bunch (American) grapes, (10) peaches, (11) plums, (12) apples, and (13) raspberries. Under the more subtropical conditions, several citrus fruits, guavas, oriental persimmons, feijoas, loquats, pomegranates, papayas, and many other fruits may be grown. In certain locations black walnuts and Chinese chestnuts may well be included.

In all areas fruit trees and bunch grapes are benefited by proper spraying, and in the vicinity of commercial orchards and vineyards fruits in the home garden should be sprayed to prevent the spread of insects and diseases. In almost every section, however, one can grow certain fruits and nuts that do not require spraying and that add greatly to the variety and healthfulness of the diet.

¹ Prepared by the staff of the Division of Fruit and Vegetable Crops and Diseases, Bureau of Plant Industry, with the collaboration of horticulturists of the States in the region. The varieties suggested herein are based on those recommended by these horticulturists.

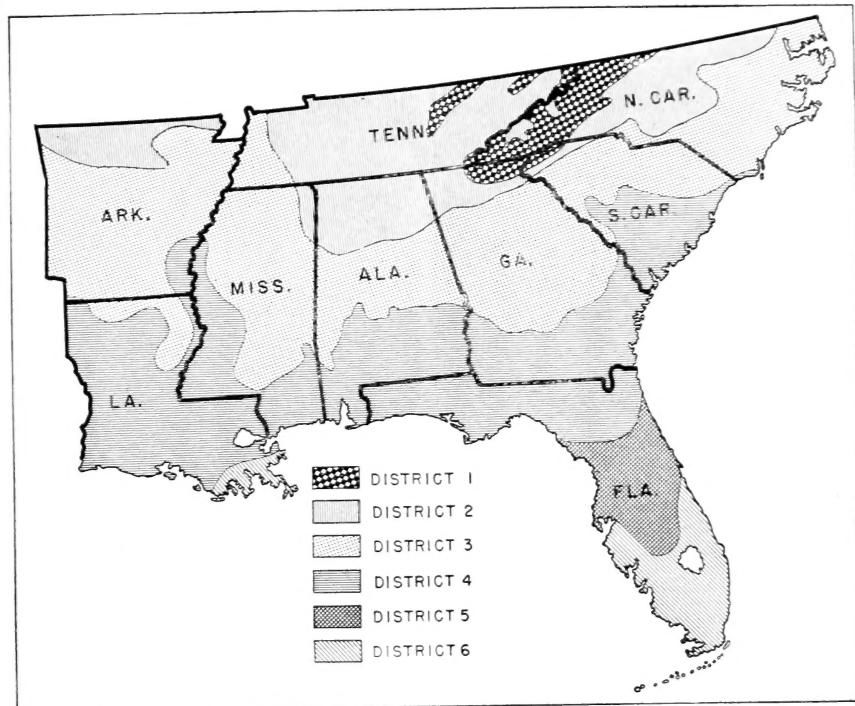


FIGURE 1.—Map of the southeastern and central Southern States: District 1—Relatively high areas, growing seasons ranging from 150 to 180 days; temperate climatic conditions prevailing suitable for growing standard northern fruit varieties. District 2—Growing seasons ranging from 180 to 200 days; many standard southern fruit varieties not grown in district 1 thrive. District 3—Upper boundary corresponds roughly with the northern limit of the Cotton Belt; pecans, muscadine grapes, and many other desirable fruit varieties may be grown. District 4—Southern portion of the Coastal Plain area, characterized by a hot humid climate during the growing season; typically southern fruits, including muscadine grapes, figs, and other desirable kinds, thrive best. District 5—Citrus fruits are grown principally, but other southern fruits may be grown advantageously in the home garden. District 6—Hot humid area; only semitropical fruits are adapted.

Muscadine grapes are adapted to the greatest number of locations and conditions, except in the more northern districts, where the bunch grapes are better adapted. The muscadines produce heavily without spraying and furnish fresh fruit over a long period as well as fruit for jelly, preserves, and beverages. They also may provide an attractive shady arbor near the house.

Pecans are very widely used as, and well adapted for, shade trees for the home and yard. The nuts are high in food value. The fig also is well adapted to most of this region. It should never be cultivated, but it should be planted near a building or in a part of the yard that is kept in grass; otherwise the tree is soon killed by root knot nematodes.

Strawberries are also well adapted to this region. They are the first fruit to ripen, are of fine flavor, and, except for citrus fruits, are highest in vitamin C content of any fruits that can be grown in this region. Even when frozen, strawberries keep their high vitamin C

content for many months. Therefore strawberries should be a part of almost every garden.

The Young and Boysen dewberries succeed except in central and southern Florida and in the high mountains. Their high flavor, pro-

TABLE 1.—*Varieties suggested for medium-sized gardens in representative parts of districts shown in figure 1*

DISTRICT 1 (MOUNTAINS OF NORTH CAROLINA, EASTERN TENNESSEE, SOUTH CAROLINA, AND GEORGIA)

Fruit or nut	Variety	When ripe	Plants	Length of row	Fruit or nut	Variety	When ripe	Plants	Length of row
Strawberry	Howard 17 (Premier).	May-June	No. 25	Ft. 50	Cherry	Montmorency.	June	No. 2	Ft. 30
	Catskill	June	25	50	Pear	Seckel	Aug.-Sept.	2	40
	Portland	July	3	24		Waite	Sept.-Oct.	2	40
Grape	Delaware	do	3	24		Kieffer	do	2	40
	Niagara	Aug.	3	24		Lodi	July	1	30
	Concord	do	3	24	Apple	Stayman	Sept.	1	30
Blackberry	Eldorado	June-July	30	120		Winesap	Oct.	1	30
	Sunrise	June	20	50		Winesap	July	2	10
Raspberry	Taylor	July	20	50		Stanley	do	2	10
	Golden Ju- bilee.	June-July	2	40	Blueberry	Scammell	do	2	10
Peach	Halehaven	July	2	40		Jersey	do	1	10
	Elberta	Aug.-Sept.	2	40		Thomas	Sept.	1	(1)
Plum	Gold	July	2	40		Ohio	Oct.	1	(1)
	Methley	Aug.	2	40					
	Shropshire	Sept.	2	40					

DISTRICT 2 (PIEDMONT AND HIGHER LANDS OF NORTH CAROLINA, SOUTH CAROLINA, GEORGIA, ALABAMA, TENNESSEE, AND NORTHERN ARKANSAS)

Fruit or nut	Variety	When ripe	Plants	Length of row	Fruit or nut	Variety	When ripe	Plants	Length of row
Strawberry	Dorsett	May	25	50	Pear	Seckel	Aug.	1	20
	Blakemore	do	25	50		Waite	Sept.	2	40
	Fredonia	July	3	24		Kieffer	do	2	40
Grape	Delaware	July-Aug.	3	24		Lodi	July-Aug.	1	30
	Niagara	Aug.	3	24		Stayman	Sept.	1	30
Dewberry	Concord	do	3	24	Apple	Winesap	do	1	30
	Young	June	10	60		Golden De- licious.	do	1	30
	Boysen	June-July	10	60		Winesap	Oct.	1	30
Peach	Golden Ju- bilee.	do	2	40		Stanley	June	3	15
	Halehaven	July	2	40	Blueberry	June	do	3	15
Plum	Elberta	July-Aug.	2	40		Scammell	do	3	15
	Gold	June-July	2	40		Hagood	July-Aug.	3	24
Cherry	Methley	July	2	40		Celeste	June-July	1	(3)
	Shropshire	Aug.-Sept.	2	40	Fig	Brown Tur- key.	do	1	(3)
	Montmorency.	June	2	30		Moore	Oct.	2	(4)
						Stuart	do	2	(4)
						Black wal- nut.	Sept.	1	(4)
						Thomas	do	1	(4)

DISTRICT 3 (EASTERN NORTH CAROLINA TO ARKANSAS)

Fruit or nut	Variety	When ripe	Plants	Length of row	Fruit or nut	Variety	When ripe	Plants	Length of row
Strawberry	Blakemore	April-May	25	50	Peach	Golden Ju- bilee.	June-July	1	20
	Fairmore ⁵	do	25	50		Halehaven	July	1	20
	Extra	Aug.	2	16		Belle of Georgia.	do	1	20
Grape	Champanel	do	2	16		Elberta	July-Aug.	2	40
	Thomas ⁶	Sept.	2	(7)		Waite	Aug.	1	20
	Hunt ⁶	do	2	(7)		Kieffer	Aug.-Sept.	1	20
Dewberry	Scuppernong	do	2	(7)	Pear	Baldwin	do	1	20
	or Yuga. ⁶					Methley	June	1	20
	Young	June	20	120		Shiro	June-July	1	20
Fig	Boysen	do	10	60		Santa Rosa	do	1	20
	Celeste	June-July	1	(8)		Tanenashi	Sept.-Oct.	2	30
Blueberry	Hagood	do	4	32	Oriental per- simmon.	Fuya	Oct.	2	30
	Owens	June-Aug.	4	32		Wonderful	Aug.-Oct.	2	(1)
Pecan	Moore	Oct.	2	(4)					
	Moneymak- er. ⁸	do	2	(4)					
	Stuart	do	2	(4)					

See footnotes at end of table.

TABLE 1.—*Varieties suggested for medium-sized gardens in representative parts of districts shown in figure 1—Continued*

DISTRICT 4 (EASTERN SOUTH CAROLINA, SOUTHERN GEORGIA, AND THE GULF COAST REGION TO LOUISIANA)

Fruit or nut	Variety	When ripe	Plants	Length of row	Fruit or nut	Variety	When ripe	Plants	Length of row	
Strawberry	Klonmore	Mar.-May	No. 25	Ft. 50	Pear	Baldwin	Aug.	No. 2	Ft. 40	
	Fairmore	April-May	25	50		Kieffer	do	2	40	
	Extra	July-Aug.	2	16		Pineapple	do	2	40	
	Champelan	Aug.	2	16		Wild Goose	June	1	20	
	Thomas ⁶	Sept.	2	(7)		Methley	do	2	40	
	Hunt ⁶	do	2	(7)		Bruce	do	2	40	
Grape	Scuppernong ⁶	do	2	(7)	Plum	Excelsior	June-July	2	40	
	Young	May-June	10	60		Oriental persimmon	Sept.	2	30	
Dewberry	Boysen	do	10	60	Pomegranate	Tanenashi	do	2	30	
Fig	Celeste	June-July	1	(3)		Fuya	Aug.-Oct.	2	(1)	
Blueberry	Green Ischia	July-Aug.	1	(3)	Satsuma	Wonderful				
	Hagood	June-July	4	32		Feijoa	Coolidge	Oct.	2	20
	Owens	June-Aug.	4	32		Loquat	Tanaka	Spring	1	15
Pecan	Moore	Oct.	2	(4)	Glen	Wase	Oct.	2	30	
	Moneymaker ⁸	do	2	(4)		Satsuma	Owari	Oct.-Nov.	2	30
Peach	Stuart	do	2	(4)	Kumquat	Citrangevin	Sept.-Dec.	2	30	
	Hiley	June	2	40		Calamondin	Oct.-Jan.	2	30	
Peach	Honey	do	2	40		Kumquat	Nagami	Nov.-Feb.	2	(1)
	Jewel	do	2	40	Guava	Cattley ⁹	Oct.-Nov.	4	40	

DISTRICT 5 (CENTRAL FLORIDA)

Orange	Hamlin	Oct.-Nov.	1	20	Pecan ¹⁰	Moore	Sept.-Oct.	1	(4)	
	Pineapple	Dec.-Feb.	1	20		Stuart	do	1	(4)	
	Valencia	Mar.-June	1	20		Gottfried	July-Sept.	1		
Grapefruit	Duncan	Nov.-Mar.	1	20	Avocado ¹¹	Waldin	Oct.-Nov.	1	20	
	Marsh	Jan.-May	1	20		Taylor	Dec.-Jan.	1	20	
Tangerine	Clementine	Oct.-Dec.	1	20		Linda	Jan.-Mar.	1	20	
	Dancy	Dec.-Feb.	1	20	Mango ¹¹	Haden	June-July	1	20	
	Orlando	Nov.-Dec.	1	20		Brooks	July-Sept.	1	30	
Tangelo	Mineola	Dec.-Jan.	1	20	Papaya	Seedlings	Entire year	4	30	
	Seminole	Feb.-May	1	20		Guava	(Lady Finger)	2	40	
Lemon	Meyer	Oct.-Mar.	1	15		Guava	(Cavendish)	2	10	
Calamondin		Oct.-Jan.	1	15			(Seedlings)	Aug.-Nov.	4	10
Kumquat	Nagami	Nov.-Mar.	1	(1)			(Cattley)	Oct.-Nov.	2	40
Fig	Celeste	April-June	1	(3)					20	
	Brown Turkey.	do	1	(3)						

DISTRICT 6 (SOUTHERN FLORIDA)

Orange	Hamlin	Oct.-Nov.	1	20	Avocado ¹¹	Fuchsia	June-July	1	20	
	Pineapple	Dec.-Feb.	1	20		Waldin	Oct.-Nov.	1	20	
	Valencia	Mar.-June	1	20		Taylor	Dec.-Jan.	1	20	
Grapefruit	Duncan	Nov.-Mar.	1	20		Booth No. 8	Jan.-Feb.	1	20	
	Marsh	Jan.-Mar.	1	20	Mango ¹¹	Haden	June-July	1	30	
Tangerine	Clementine	Oct.-Dec.	1	20		Brooks	July-Sept.	1	30	
	Dancy	Dec.-Feb.	1	20	Papaya	Cambo-dia-na	Jan.-Feb.	1	30	
	Orlando	Nov.-Dec.	1	20		Guava	Seedlings	Entire year	4	40
Tangelo	Mineola	Dec.-Jan.	1	20			(Lady Finger)	2	10	
	Seminole	Feb.-May	1	20			(Cavendish)	2	10	
Lemon	Perrine		1	20			(Seedlings)	Aug.-Nov.	4	40
Lime	Tahiti (Persian).	Everbearing	1	20			(Cattley)	Oct.-Nov.	2	20
Fig	Celeste	April-June	1	(3)						
	Brown Turkey.	do	1	(3)						

¹ In yard.² Not recommended for Tennessee or Arkansas.³ 2 feet from building.⁴ 60 feet apart around buildings or in yard.⁵ Not recommended for Tennessee.⁶ Plant male vine near by these muscadine grapes.⁷ On arbor 20 feet apart.⁸ For South Carolina.⁹ For southern parts only.¹⁰ For northern part only.¹¹ If space is lacking several varieties may be grafted on a single stock.

ductiveness, and vigorous growth enable one to obtain an abundance of high-flavored fruit 1 year after planting.

Strawberries, dewberries, figs, and grapes cover the season from April or May till frost in most of this region. Larger gardens that include blueberries, pecans, pears, peaches, plums, and other fruits will furnish a greater variety of fresh fruit during much of the year.

The varieties recommended for a medium-sized garden in representative parts of the different districts are given in table 1. Some of the varieties suggested are different from those grown in commercial plantings. Usually more than one variety is listed in order to cover a long season. Two or more varieties each of pears, Chinese chestnuts, some plums, muscadine grapes (including one male vine), apples, blueberries, and avocados must be planted to insure pollination.

Planting and Care

SOURCES OF PLANTS.—Most fruits adapted to this region are not grown from seed but are propagated by cuttings and grafting or budding. Exceptions are guavas, papayas, and occasionally oranges and a few others. Fruit varieties are propagated by commercial nurserymen, who are generally dependable sources. Names of nurseries can be supplied by the State agricultural extension service.

LOCATION OF PLANTING.—Although it is generally desirable to have the planting near the house and perhaps adjacent to the vegetable garden, this may not be the most favorable location. In general, the planting should not be in a low area but should be on moderately elevated land or on a slope that will provide satisfactory air drainage. In other words, the site should not be frosty. The soil should be reasonably fertile and well drained. A location where the soil tends to remain wet after rain should be avoided. Pecans need a deep soil and figs a site where the roots can run under a building. Fruit trees should not be planted near wood lots or shade trees, since full exposure to sunlight is needed.

SIZE OF PLANTING.—The size of the planting will vary with the space available. In some locations there may be space for only a few grapevines on an arbor or a fence, a few fruit or nut trees around the buildings, or a row or two of berries by the fence. In other sites the size of the planting is determined by the needs of the family and by the kinds of fruit that can be grown. Most small gardens (10 by 50 feet to 30 by 50 feet) should consist mostly of berries and grapes. A half-acre garden that includes fruit and nut trees and that will furnish fruit in season for a large family is diagrammed in figure 2.

WHEN AND HOW TO PLANT.—In the northern districts usually a better stand of trees and plants will be obtained by setting them in the fall or as early in the spring as it is possible to prepare the soil. In the other districts planting may be done during late fall or winter. The ground should be prepared as thoroughly as for a vegetable garden. It is important that the plants be entirely dormant, with no buds starting, at time of planting. Also, the roots should not be allowed to dry out. Berries and grapes should be set at the same depth as they grew in the nursery. The fruit and nut trees should be set slightly deeper. The roots should be spread out when the plants are set. When the holes are dug the topsoil and subsoil are separated. The topsoil is placed about the roots of the tree in the holes, and the subsoil is used last to fill up the rest of the hole. The soil should be thoroughly firmed about the roots to prevent drying out and to help hold the tree in position.

PRUNING BEFORE PLANTING.—Strawberries should have all fully developed leaves picked off before being planted. The canes of dewberries and blackberries should be cut back to 6 inches at time of

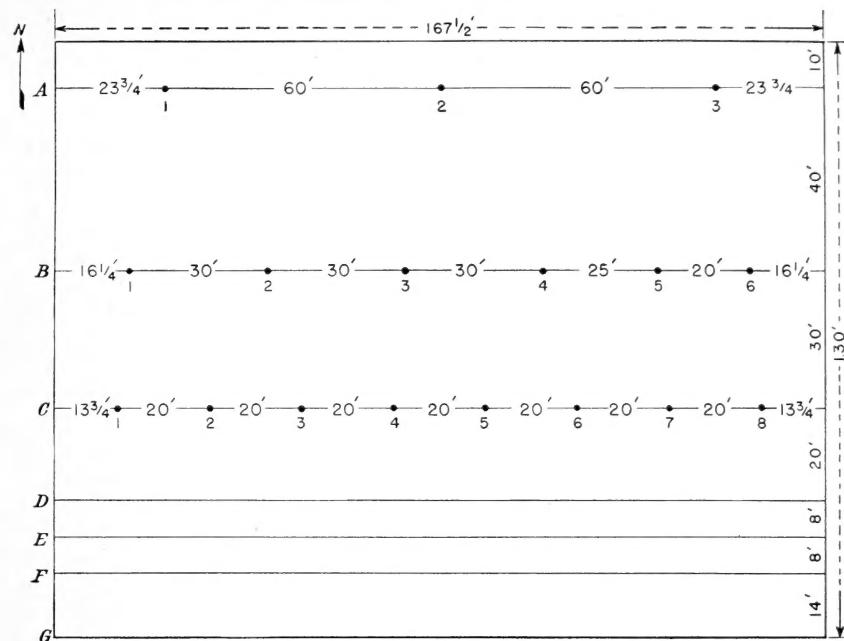


FIGURE 2.—Suggested arrangement of a half-acre fruit and nut garden in northern districts. Row A—Nos. 1 to 3, pecans. Row B—Nos. 1 to 4, apples; Nos. 5 and 6, pears. Row C—Nos. 1 to 3, plums; Nos. 4 to 8, peaches. Row D—dewberries (Young and Boysen). Row E—raspberries (half row; one variety); blackberries (half row; one variety). Row F—strawberries (two varieties). Row G—bunch or muscadine grapes on a wire trellis, or on a fence used as a trellis. Fruit and nut trees should be placed on the north side, if possible, to avoid shading of small fruits.

planting. Grapevines are usually cut back, leaving only one or two buds. If fruit trees obtained from the nursery are unbranched whips, they should be headed back to a height of 3 to $3\frac{1}{2}$ feet. If they have several good-sized branches well spaced along the trunk, three or four may be left. The branches should be spaced about a foot apart up and down the trunk and pointing in different directions.

CULTIVATION.—The cultivation of the home fruit garden is similar to that of the vegetable garden for the first part of the season. After about September 1 cultivation of fruit trees, vines, and bushes should cease. Strawberries should be cultivated until the end of the growing season. Under most conditions the same methods of maintaining the fertility of the soil that are followed in a vegetable garden are successful with fruit. Where stable manure is available, its liberal use generally gives excellent results.

All berry plants should be given clean cultivation as are vegetables unless there is an abundance of straw or other mulching material to furnish a permanent mulch. Fruit trees may be cultivated for the first 3 or 4 years if it is not possible to mulch them with straw or strawy manure. Thereafter apples, pears, plums, cherries, and nuts may be kept in sod. Peaches and grapes do best where they receive some cultivation, but they can also be grown in grass and mulched where cultivation cannot be given. Manure mulch will take care of the fertilizer requirements of the fruit plants. When manure is not available, a fertilizer high in nitrogen should be used.

PRUNING AFTER THE FIRST YEAR.—To many inexperienced growers the question of how to prune trees and bushes appears to be very complicated. If certain basic principles are kept in mind, however, it is possible for even the inexperienced grower to do a satisfactory job of pruning. The purpose of pruning is to develop the tree or bush so that it will have maximum strength to carry a load of fruit and maximum bearing capacity. A safe rule in pruning trees, particularly young trees up to bearing age, is to prune them as little as will accomplish this specific purpose. Cross branches and suckers should be removed, and broken or dying limbs should be cut out. Young trees of most fruits require little pruning before they come into bearing. Pruning of fruit trees in general should be done during the dormant season, preferably in the spring after danger of severe winter freezing is past but before growth has started.

If the growth of vines of bunch grapes is rather weak during the first season, it is advisable to cut the vine back at the end of the first growing season to one or two buds and to train up a strong trunk during the second growing season. If the vine is to be trained to a fence or a two-wire system, it should be tied to a stake and carried upright until it reaches the top wire. At that point it should be pinched off and two laterals led out, one in either direction, along the wire. During the second season, lateral canes will grow from all the buds along the trunk. Two of these at the height of the first wire above the ground should be selected and tied to that wire to develop fruiting wood. The other branches along the trunk should be rubbed off or pinched back during the growing season.

Pruning should be done while the vines are in a dormant condition. It is important to note that the fruit is borne on shoots from the canes of the previous season's growth. In pruning, therefore, enough new wood should be saved to provide for the next summer's crop and the rest removed. With healthy, vigorous vines, from 50 to 60 buds will produce as much fruit as the vine can mature properly. More wood may be left on vines for home production, provided sufficient space is available for the vine to develop. With vigorous vines, the leaving of more wood may result in a greater total quantity of fruit, but the individual bunches may be inferior in size and the fruit of poorer quality.

Vines of muscadine grape are pruned somewhat differently. With these the canes laid off on the wires serve as permanent arms, and the new growth is pruned so as to leave fruiting spurs 6 to 8 inches long. Such spurs should be evenly distributed along the arm and so spaced as to allow free development of new shoots. All excess wood should be pruned away.

Except in the mountain region the pruning of dewberries and blackberries consists in removing all the canes, both old and new, after the fruit has been picked. New canes will then develop strong growth to produce fruit for the following season. In the western part of North Carolina and South Carolina, in northern Georgia, and in Tennessee the season is not long enough for strong new canes to grow. There just the old canes that have fruited should be cut out after the fruit has been picked. The new canes of dewberries are left till the following spring, when they are tied in a spiral to stakes standing about 6 feet above ground. Winter pruning of the blackberry consists in cutting back lateral branches to about 12 inches.

